

In re Application of GEIDL
Serial No. 09/976,188

REMARKS

The Office action has been carefully considered. The Office action rejected claims 1-4, 6-10, 12-15, 17-21, 23, and 25-29 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 20030001899 to Partanen et al. ("Partanen") in view of Chinese Patent No. 1074542A to Dequan ("Dequan"). Further, the Office action rejected claims 5, 16, 22, and 30-33 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of Dequan and in further view of U.S. Patent No. 5,956,423 to Frink et al. ("Frink"). Further yet, the Office action rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of Dequan and in further view of U.S. Patent No. 6,018,736 to Gilai et al. ("Gilai"). Finally, the Office action rejected claims 24 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of Dequan and in further view of Microsoft Excel 1999 ("Excel"). Regarding these claim rejections, applicant respectfully disagrees.

By present amendment, claims 1, 18, and 30 have been amended for clarification and not in view of the prior art. Applicant submits that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Applicant thanks the Examiner for the interview held (by telephone) on October 13, 2005. During the interview, the Examiner and applicant's attorney

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discussed the claims with respect to the prior art. The essence of applicant's position is incorporated in the remarks below.

Prior to discussing reasons why applicant believes that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

The present invention is directed to a system and method for facilitating the input of handwritten data into a computing environment. In one embodiment, a first program executing in the computer environment is able to evaluate various fields of a second program also executing in the computer environment to determine whether or not handwritten data may be input into a field. As such, the first program may display a semi-transparent user input interface relative to an application's currently focused input field at times when handwritten input is appropriate. The semi-transparent user interface may be displayed when a text input field receives focus, *i.e.*, the application is ready to receive input. The user interface may be displayed either over the top of or near the input field. Thus the user interface may receive handwritten data, while at the same time the input field may still receive typed data. In this manner, a user may enter information to the field through simple typing or through handwriting that uses a recognition engine to provide data to the field as well.

The semi-transparent input field can grow as needed to receive input, or may fade / disappear when not used for a time. Handwritten data is recognized and passed to the application as if it was typed in the focused field, and the application need not be aware that handwriting may be used to enter data, as the

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system and method are external to the application. Pen events that are not handwriting, but comprise gestures directed to the program through the semi-transparent input user interface, may also be detected by a gesture detection engine and sent to the application. A user may, thus, be guided to enter handwriting, while handwriting recognition appears to be built into applications, whether or not those applications are aware of handwriting capabilities.

Note that the above description is for example and informational purposes only, and should not be used to interpret the claims, which are discussed below.

Turning to the claims, amended claim 1 recites in a computing device having an executing program, a method comprising evaluating a program field that has focus against information indicative of whether the field is configured to receive text input from typed user input; and if the field is configured to receive text input 1) providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to simultaneously receive typed input data, the program field still operable to receive typed user input, 2) receiving handwritten data at the input interface, 3) providing the handwritten data to a recognition engine, and 4) returning a recognition result to the program.

The Office action rejected claim 1 as being unpatentable over Partanen in view of Dequan. More specifically, the Office action contends that Partanen teaches evaluating a program field that has focus against information indicative of whether the field is configured to receive text input. Page 1, paragraph 0016 of Partanen is referenced. Further, the Office action contends that Partanen teaches

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if the field is configured to receive text input, providing a visible user input interface at a displayed location relative to the field, such that the user input interface is operable to receive handwritten data while the field is operable to receive input data. Page 1, paragraph 0016, FIG. 1, page 2, paragraph 0032, and page 3, paragraph 0038 of Partanen are referenced. Further yet, the Office action contends that Partanen teaches receiving handwritten data at the input interface. Page 2, paragraph 0022 of Partanen is referenced. Still further, the Office action contends that Partanen teaches providing the handwritten data to a recognition engine. Page 2, paragraph 0025 of Partanen is referenced. Finally, the Office action contends that Partanen teaches returning a recognition result to the program. Page 2, paragraph 0022 of Partanen is referenced.

The Office action acknowledges that Partanen does not teach receiving typed user input and the program field being operable to receive typed and handwritten user input. However, the Office action contends that Dequan does teach this recitation and it would have been obvious to a person skilled in the art at the time of the invention to combine the teachings of Partanen with the teachings of Dequan because increasing the flexibility of input functions of Partanen's system to include Dequan's capabilities is desirable. Applicant respectfully disagrees.

To establish *prima facie* obviousness of a claimed invention, all of the claim recitations must be taught or suggested by the prior art; (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)), and "all words in a claim must be considered in judging the patentability of that claim against the prior art;" (*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). Further, if prior art, in any

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material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997). Moreover, if a modification would render a reference unsatisfactory for its intended purpose, the suggested modification / combination is impermissible. See MPEP § 2143.01.

Applicant submits that the Office action has failed to establish a *prima facie* case for obviousness. Partanen teaches, generally, a system and method for allowing a user of an electronic device, such as a PDA or a mobile phone, to input data via a handwriting recognition system. As such, Partanen may teach a semi-transparent window in which the user of the electronic device may open and initiate handwritten input that is entered inside the newly opened, semi-transparent window on a touch sensitive screen. The inputted handwritten data may be sent to a handwriting recognition engine, which, in turn, translates the handwritten data into digital text representations that may then appear in an associated underlying field.

However, the system taught by Partanen does not provide for nor allow typed text to be entered directly into an underlying field. In fact, there is no teaching anywhere in Partanen about an underlying field remaining active such that typed text may be entered while the semi-transparent window is present. Further, there is no teaching of typed input in any manner at all in Partanen. At best, Partanen teaches a virtual keyboard wherein a user may use a stylus to select characters from a graphic interface. This teaching is merely a hand gesture recognition which is still just another form of handwriting recognition. Moreover,

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there is no teaching in Partanen that both the semi-transparent field and the underlying field may simultaneously receive handwritten input and typed user input, respectively.

Dequan does not cure this deficiency as the system taught by Dequan also does not allow for typed input and handwritten input to be simultaneously entered by a user. Dequan teaches several different modes for entering data into a screen. The modes include typed mode and four different kinds of handwriting recognition modes. Switching between modes for data entry is not the same as allowing a user to simultaneously enter typed data or handwritten data into one field as recited in claim 1.

In contrast, the method of claim 1 recites providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to simultaneously receive typed input data, the program field still operable to receive typed user input. That is, an input field may still receive typed data from a keyboard (not a virtual keyboard) while the associated visible user input interface may receive, at the same time, handwritten input data, which may be translated by a handwriting recognition engine and returned to the input field. Certainly, Partanen, Dequan, or any other prior art of record can not be construed to teach or suggest this recitation.

Furthermore, the motivation to combine the teachings of Partanen with the teachings of Dequan is flawed. Applicant submits that the Office action is employing impermissible hindsight reasoning. To suggest that the motivation to

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combine one reference with another is obvious because the resultant teachings are inherently better (*i.e.*, more flexible, more functional, as argued by the Office action) is tantamount to arguing the very invention taught by the applicant. As a matter of law, obviousness may not be established using hindsight obtained in view of the teachings or suggestions of the applicants. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). To guard against the use of such impermissible hindsight, obviousness needs to be determined by ascertaining whether the applicable prior art contains any suggestion or motivation for making the modifications in the design of the prior art article in order to produce the claimed design. The mere possibility that a prior art teaching could be modified or combined such that its use would lead to the particular limitations recited in a claim does not make the recited limitation obvious, unless the prior art suggests the desirability of such a modification. See *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

For at least the foregoing reasons, applicant submits that claim 1 is allowable over the prior art of record.

Applicant respectfully submits that dependent claims 2-17, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 1 and consequently includes the recitations of independent claim 1. As discussed above, Partanen and Dequan, whether considered individually or in any permissible combination with each other or any other prior art of record, fail to teach or suggest the recitations of claim 1 and, therefore, these claims are also

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allowable over the prior art of record. This failure remains even when additional prior art is introduced such as with Frink (claims 5 and 16) or Gilai (claim 11). In addition to the recitations of claim 1 noted above, each of these dependent claims includes additional patentable elements.

For example, claim 10 recites that evaluating at least one window attribute corresponding to the field comprises accessing window class information. Nowhere in the teachings of Partanen is there any mention or appreciation of the concept of window class information, let alone a teaching of this concept. Partanen simply teaches expanding an input field when double-tapped and does not show any capability of assessing window attributes or window class information. No other prior art of record cures this deficiency either. Applicant submits that claim 10 is allowable over the prior art of record for at least this additional reason.

Turning to the next independent claim, amended claim 18 recites in a computing device having a program, a system comprising user input interface code operable to receive typed input from a user, a field typing engine configured to evaluate a field of the program, determine if that field is supported by the user input interface code, and if so, to communicate information to the user input interface code; the user input interface code drawing a visible input area to indicate that data may be entered therein while still allowing the user to simultaneously enter typed input via the user input interface code, the drawing of the visible input area based on the information received from the field typing engine, and a recognition engine that receives entered data from the user input interface code and converts the

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entered data to a recognition result that is made available to the program by the user input interface.

The Office action rejected claim 18 as being unpatentable over Partanen in view of Dequan. More specifically, the Office action contends that the same sections of Partanen and Dequan as cited above with regard to the rejection of claim 1 also teach the recitations of claim 18. Applicant respectfully disagrees.

Applicant submits that the Office action has failed to establish a *prima facie* case for obviousness. As discussed above, Partanen teaches, generally, a system and method for allowing a user of an electronic device, such as a PDA or a mobile phone, to input data via a handwriting recognition system. Partanen may teach a semi-transparent window in which the user of the electronic device may open and initiate handwritten input that is entered inside the newly opened, semi-transparent window on a touch sensitive screen. However, the system taught by Partanen does not provide for nor allow typed text to be entered directly into an underlying field. In fact, there is no teaching anywhere in Partanen about an underlying field remaining active such that typed text may be entered while the semi-transparent window is present.

Dequan does not cure this deficiency as the system taught by Dequan also does not allow for typed input and handwritten input to be simultaneously entered by a user. Dequan teaches several different modes for entering data into a screen. The modes include a typing mode and four different kinds of handwriting recognition modes but switching between modes for data entry is still required.

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This is not the same as allowing a user to simultaneously enter typed data or handwritten data into one field as recited in claim 18.

Pursuant to this, claim 18 recites providing a field such that the user input interface is operable to receive handwritten data while allowing the user to simultaneously enter typed input via the user input interface code. That is, an input field may still receive typed data from a keyboard (not a virtual keyboard) while the associated visible user input interface may receive, at the same time, handwritten input data, which may be translated by a handwriting recognition engine and returned to the input field. Certainly, Partanen, Dequan, or any other prior art of record can not be construed to teach or suggest this recitation.

Furthermore, the motivation to combine the teachings of Partanen with the teachings of Dequan is flawed. Applicant submits that the Office action is employing impermissible hindsight reasoning. As a matter of law, obviousness may not be established using hindsight obtained in view of the teachings or suggestions of the applicants. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). For at least the foregoing reasons, applicant submits that claim 18 is allowable over the prior art of record.

Applicant respectfully submits that dependent claims 19-29 by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 18 and consequently includes the recitations of independent claim 18. As discussed above, Partanen and Dequan, whether considered individually or in any permissible combination with each other or any other prior art of record, fail to

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teach or suggest the recitations of claim 18 and, therefore, these claims are also allowable over the prior art of record. This failure remains even when additional prior art is introduced such as with Frink (claim 22) or Excel (claim 24). In addition to the recitations of claim 18 noted above, each of these dependent claims includes additional patentable elements.

Turning to the last independent claim, amended claim 30 recites in a computer system having a graphical user interface, a system comprising an application program having at least one application input area into which user input data can be entered wherein at least one way in which input data may be entered includes user-typed data, user interface code external to the application program a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area, the user interface code providing a semi-transparent input area based on the attribute information when called, the semi-transparent input area configured such that a user may still simultaneously enter data via user-typed data input into the user interface code, a timing mechanism configured to cause removal of the semi-transparent input area when no user interaction with the visible input area is detected for a period of time, a gesture engine, the gesture engine invoked to determine whether user input data directed to the semi-transparent input area is a gesture directed to the application program or information that should be recognized as text, and a handwriting recognition engine, the handwriting recognition engine configured to receive the information that the gesture engine has decided should be recognized as text, the

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handwriting recognition engine responding by returning recognized text when provided with the information.

The Office action rejected claim 30 as being unpatentable over Partanen in view of Dequan and in further view of Frink. More specifically, the Office action contends that Partanen teaches an application program having at least one application input area into which user input data can be entered wherein at least one way in which input data may be entered includes user-typed data. Paragraphs 0014-0016 of Partanen are referenced. Further, the Office action contends that Partanen teaches user interface code external to the application program. Paragraphs 0022 and 0032-0040 of Partanen are referenced. Further yet, the Office action contends that Partanen teaches a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area. Paragraphs 0022 and 0032-0040 of Partanen are referenced. Still further, the Office action contends that Partanen teaches the user interface code providing a semi-transparent input area based on the attribute information when called, the semi-transparent input area configured such that a user may still enter data via user-typed data input into the user interface code. Paragraphs 0032 and 0038 of Partanen are referenced. The Office action contends that Partanen teaches a gesture engine, the gesture engine invoked to determine whether user input data directed to the semi-transparent input area is a gesture directed to the application program or information that should be recognized as text. Paragraphs 0032 and 0038 of Partanen are referenced. Finally, the Office action contends that

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Partanen teaches a handwriting recognition engine, the handwriting recognition engine configured to receive the information that the gesture engine has decided should be recognized as text, the handwriting recognition engine responding by returning recognized text when provided with the information. Paragraphs 0032 to 0040 of Partanen are referenced.

The Office action acknowledges that Partanen does not teach receiving typed user input and the program field being operable to receive typed and handwritten user input. However, the Office action contends that Dequan does teach this recitation. Furthermore, the Office action acknowledges that neither Partanen nor Dequan teaches a timing mechanism configured to cause removal of the semi-transparent input area when no user interaction with the visible input area is detected for a period of time. However, the Office action contends that Frink teaches this recitation. The Office action concludes that it would have been obvious to a person skilled in the art at the time of the invention to combine the teachings of Partanen with the teachings of Dequan and the teachings of Frink because increasing the flexibility of input functions of Partanen's system to include Dequan's and Frink's capabilities is desirable. Applicant respectfully disagrees.

Applicants submit that the Office action has failed to establish a *prima facie* case for obviousness. As discussed above, Partanen does not teach the concept of simultaneously entry for both typed data and handwritten data into a single field in a computer data input system. Dequan does not cure this deficiency as Dequan requires switching between different modes of operation. Frink certainly does not cure this deficiency. As such, no prior art of record in any permissible combination

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teaches or suggest a semi-transparent input area for handwriting input configured such that a user may still simultaneously enter data via user-typed data input into the user interface code as recited in claim 30. Certainly, Partanen, Dequan, Frink or any other prior art of record can not be construed to teach or suggest this recitation.

Furthermore, the motivation to combine the teachings of Partanen with the teachings of Dequan and Frink is flawed. Applicant submits that the Office action is employing impermissible hindsight reasoning. As a matter of law, obviousness may not be established using hindsight obtained in view of the teachings or suggestions of the applicants. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). For at least the foregoing reasons, applicant submits that claim 30 is allowable over the prior art of record.

The Office action rejected claims 31-33 as being unpatentable over Partanen in view of Dequan in further view of Frink. Applicant respectfully submits that dependent claims 31-33 by analysis similar to the analysis discussed above with respect to claim 30, are allowable. Each of these claims depends directly from claim 30 and consequently includes the recitations of independent claim 30. As discussed above, Partanen, Dequan, and Frink, whether considered individually or in any permissible combination with each other or any other prior art of record, fail to teach or suggest the recitations of claim 30 and, therefore, applicant submits that these claims are also allowable over the prior art of record.

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For at least these additional reasons, applicant submits that all the claims are patentable over the prior art of record. Reconsideration and withdrawal of the rejections in the Office action is respectfully requested and early allowance of this application is earnestly solicited.

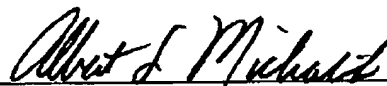
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CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-33 are patentable over the prior art of record, and that the application is in good and proper form for allowance. A favorable action on the part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (425) 836-3030.

Respectfully submitted,



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